April 2013

Water Quality News

A Newsletter for the Citizens Served by the City of Midland Water System

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Here are some helpful City of Midland telephone numbers:

24-hour water emergency services: 989-837-3515

Questions or concerns about water quality: 989-837-3515

Distribution system questions or problems: 989-837-6950

Utility Billing – Water office @ City Hall: 989-837-3341

2012 DRINKING WATER QUALITY REPORT

The City of Midland has a water treatment facility designed to do one thing — provide drinking water that meets all state and federal water-quality standards. Midland's annual **Drinking Water Quality Report** is intended to provide you, our customer, with the most recent water quality testing data. Your concerns and opinions are important to us, and we encourage you to contact us with any questions or comments. You can reach us by calling the Water Treatment Plant at **837-3515** or leaving a message on our 24-hour citizen comment line, **837-3400**. You may also send an e-mail to cityhall@midland-mi.org or write to us at **333 West Ellsworth Street, Midland, MI 48640**.

WHAT THE EPA SAYS ABOUT DRINKING WATER CONTAMINANTS

Drinking Water

Between claims made by people selling water treatment devices and news reports about environmental issues, it is easy to forget that the water delivered by the Midland Water System undergoes a multi-stage treatment process and is rigorously tested to ensure it meets strict government standards. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Additionally, the presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained from the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791) or www.epa.gov/drink/.

What if I Have Special Health Needs?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons – such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants – can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or www.epa.gov/drink/.

Source Water

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

2012 PROJECTS

Plymouth Tower Cleaning

Over the years grime had discolored the elevated tower near Plymouth Park. The cleaning removed most of the discoloration from the tank, to make it look much better.

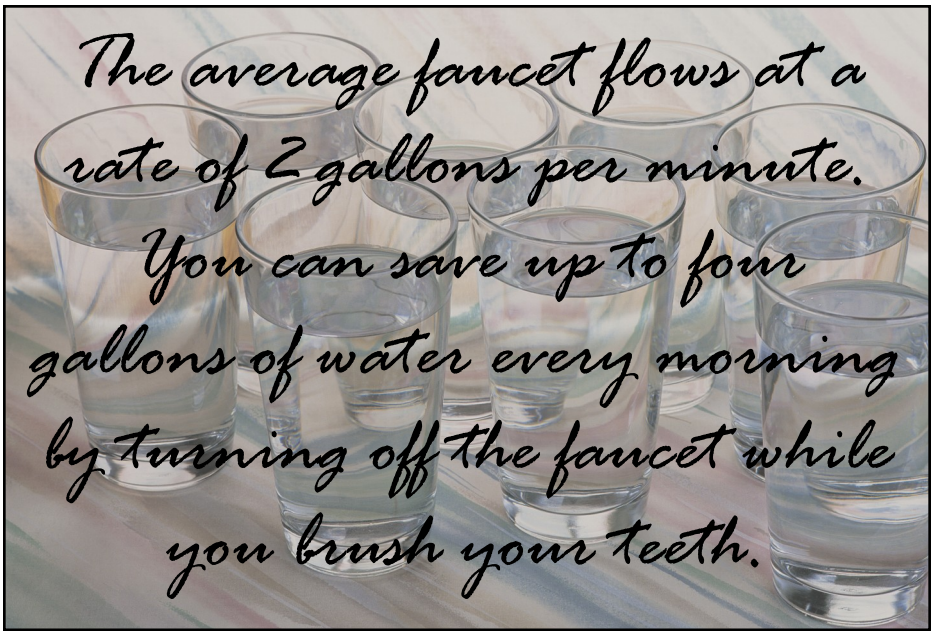
Roof Project

The roofing system for the Water Treatment Plant was completely replaced with a spray foam system.

The added insulation factor will help to reduce the heating cost for the building.

Fluoride Tank Project

Two new chemical storage tanks were installed to replace the single storage tank. With two tanks, fluoride can be fed continuously, even if repairs are needed on one tank.



GLOSSARY OF TERMS

Tables on the following page contain scientific terms and measures, some of which may require an explanation.

AL — Action Level: The concentration of a contaminant which, if exceeded, triggers the need for additional treatment or other requirements that a water system must meet.

Highest RAA — Highest Running Annual Average: Calculated quarterly.

MCL — Maximum Contaminant Level: The highest level of a contaminant, that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG — Maximum Contaminant Level Goal: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL — Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG — Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

ntu — Nephelometric Turbidity Units: A measure of the clarity of water. The lower the numbers, the clearer the water.

n/a: Not Applicable

ppb — part per billion: These units describe the levels of detected contaminants. One part per billion is about one dissolved aspirin tablet (325 mg) in a typical 25-meter swimming pool (about 100,000 gallons).

ppm — Part per million: These units describe the levels of detected contaminants. One part per million is about 1/2 of a dissolved aspirin tablet (162.5 mg) in a full bathtub of water (about 50 gallons).

TT — Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

2012 City of Midland Water Quality Data

REGULATED PARAMETERS AT CITY OF MIDLAND WATER TREATMENT PLANT

SUBSTANCE (unit of measure) Likely Source	MCL	MCLG	AMOUNT DETECTED RANGE	AMOUNT DETECTED AVERAGE	VIOLATION
Fluoride (ppm) Erosion of natural deposits; Water Treatment additive which promotes strong teeth	4	4	0.1 - 1.0	0.5	NO
Turbidity (ntu) Soil runoff; suspended matter in surface water	TT[a]	n/a	0.1 - 0.20	n/a	NO
Barium[b] (ppm) Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	2	2	0.01	0.01	NO
Selenium[b] (ppb) Discharge from petroleum refineries; erosion of natural deposits; discharge from mines	50	50	2	2	NO

REGULATED PARAMETERS IN THE DISTRIBUTION SYSTEM

SUBSTANCE (unit of measure) Likely Source	MRDL	MRDLG	AMOUNT DETECTED RANGE	AMOUNT DETECTED HIGHEST RAA	VIOLATION
Chlorine (ppm) Water treatment additive for control of microbial contaminants	4.0	4.0	0.00 - 1.05	0.64	NO

	LOCATION	MCL	RANGE	HIGHEST RAA	VIOLATION
TTHMs [Total Trihalomethanes] (ppb) By-products of drinking water disinfection	City of Midland	80	37 - 61	57	NO
	Homer Township	80	40 - 57	57	NO
	Larkin Township	80	40 - 57	57	NO
	Midland Township	80	40 - 63	57	NO
	Mills Township	80	40 - 57	57	NO
HAA5 [Total Haloacetic Acids] (ppb) By-products of drinking water disinfection	City of Midland	60	17 - 27	20	NO
	Homer Township	60	17 - 27	20	NO
	Larkin Township	60	17 - 27	20	NO
	Midland Township	60	17 - 27	20	NO
	Mills Township	60	17 - 27	20	NO

REGULATED PARAMETERS AT THE CUSTOMER'S TAP (CITY OF MIDLAND)

SUBSTANCE (unit of measure) Likely Source	MCL	MCLG	AMOUNT DETECTED 90TH PERCENTILE	VIOLATION
Copper[c,e] (ppm) Corrosion of household plumbing systems	AL=1.3	1.3	0.260	NO
Lead[d,e] (ppb) Corrosion of household plumbing systems	AL=15	0	3	NO

UNREGULATED PARAMETERS (SINGLE SAMPLE AT WATER TREATMENT PLANT)

SUBSTANCE (unit of measure) Likely Source	AMOUNT DETECTED	VIOLATION
Sodium (ppm) Erosion of natural deposits	6	NO

a. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system. The treatment technique for turbidity requires that all samples be below 1 ntu, and at least 95% of the samples each month be lower than 0.3 ntu. 100% of our samples were below 0.3 ntu.
b. Testing for this substance conducted every nine years. Test date 2004.
c. No testing sites exceeded the Copper Action Level of 1.300 ppm.
d. No testing sites exceeded the Lead Action Level of 15 ppb.
e. Testing for this substance conducted every three years. Test date 2010.

SOURCE WATER INFORMATION

Midland has received its source water supply from Lake Huron since 1948. The source water pumping system is jointly owned and operated by the cities of Midland and Saginaw and is called the Saginaw-Midland Municipal Water Supply Corporation (SMMWSC). Water is drawn into the system through two intake structures located in Lake Huron off the shores of Whitestone Point. The water is chlorinated at the lake intake structures to remove harmful bacteria and zebra mussels and is then pumped through 65 miles of pipeline to Midland. The water treatment complex is able to provide 48 million gallons per day (MGD) of treated Lake Huron water to our community. The water plant is staffed by state-certified water treatment operators, water analysts and maintenance personnel that monitor, test, maintain and adjust the treatment process to provide high-quality and reliable water service. Water distribution personnel are on duty to ensure water quality and safety as the water is delivered to the Midland area through approximately 359 miles of water main.

In June 2004, the Michigan Department of Environmental Quality (MDEQ) released a Source Water Assessment Report (SWAR) for our community's source of raw water. Included in the Source Water Assessment is a susceptibility analysis of our raw water. Susceptibility is a measure of the factors within the source water area that may pose a risk to the water supply. The Source Water Assessment Report concluded that potential contaminant sources present a negligible risk due to the physical location of the intakes. Based on our intake's infrequent experience with abnormal current flows, the Saginaw-Midland source water is defined as moderately low for susceptibility to potential contamination. Midland has effectively treated this source to meet drinking water standards.

Protecting the source of our drinking water is an investment in our community's future and one of our main priorities. A copy of the Source Water Assessment is available for review at the Water Office, located at City Hall. If you have questions or need additional information on the report, please call the Water Plant at **837-3515**.

INFORMATION ON LEAD AND COPPER

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Midland is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline 1-800-426-4791 or at www.epa.gov/drink/.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should contact their physician. If you are concerned about elevated copper levels in your home's water, you may wish to have the water tested, and flush your tap for 30 seconds to 2 minutes before using the water.

Contact the City's Water Treatment Plant at **837-3515** for further information on water testing.

2012 Drinking Water Quality Report

Is produced by the Utilities Department – Water Division
333 W. Ellsworth • Midland, MI • 48640 • www.midland-mi.org

Midland City Council – meetings held twice monthly on Monday evenings at 7 p.m. Check your City calendar for dates.
Tom Adams, Ward 1
Maureen Donker, Ward 2/Mayor
J. Dee Brooks, Ward 3
Diane Brown Wilhelm, Ward 4
Marty Wazbinski, Ward 5/Mayor Pro Tem

Printed copies of this report are available at City Hall and the Grace A. Dow Memorial Library. To have a printed copy mailed directly to you, please call **989-837-3341**.